



## PC-0027 US What is claimed is:

- An isolated cDNA comprising a nucleic acid sequence encoding a protein having the amino acid equence of SEO ID NO: 1, or the complement thereof.
- An isolated cDNA comprising a nucleic acid sequence selected from:

- a) SEQ ID NO:2 or the complement thereof;
- b) a fragment of SEQ IQ NO:2 selected from SEQ ID NOs:3-5 or the complement thereof; and  $\nu$
- c) a variant of SEQ ID NO:2 selected from SEQ ID NOs:6-7.
- 3. An isolated cDNA comprising a nucleic acid sequence of SEQ ID NO:2.
- A composition comprising the cDNA or the complement of the cDNA of claim 1 and a labeling 4. moiety.

A vector comprising the DNA of claim 1. 5.

- A host cell comprising the vector of claim 5. 6.
- 7. A method for using a cDNA to produce a protein, the method comprising:
  - a) culturing the host cell of claim 6 under conditions for protein expression; and
  - b) recovering the protein from the host cell culture.
- A method for using a cDNA to detect expression of a nucleic acid in a sample comprising: 8.
  - a) hybridizing the composition of claim 4 to nucleic acids of the sample, thereby forming

hybridization complexes; and

- b) comparing hybridization complex formation with a standard, wherein the comparison indicates expression of the cDNA in the sample.
- The method of claim & further comprising amplifying the nucleic acids of the sample prior to hybridization.
- 10. The method of claim 8 wherein the composition is attached to a substrate.
- 11. The method of claim 8 wherein the cDNA is differentially expressed when compared with a standard and diagnostic of a colon cancer or colon polyps.
- 12. A method of using a cDNA to screen a plurality of molecules or compounds, the method comprising:

a) combining the cDNA of claim 1 with a plurality of molecules or compounds under conditions to allow specific binding; and

- b) detecting specific binding thereby identifying a molecule or compound which specifically binds the cDNA.
- 13. The method of claim 12 wherein the molecules or compounds are selected from DNA molecules, RNA molecules, peptide nucleic acids, artificial chromosome constructions, peptides, transcription

20

30



5

10

7 PC-0027 US factors, repressors, and regulatory molecules.

- 14. A purified protein or a portion thereof selected from:
  - a) an amino acid sequence of SEQ ID NO:1;
  - b) an antigenic epitope of SEQ ID NO:1; and
  - c) a biologically active portion of SEQ ID NO:1.
- 15. A composition comprising the protein of claim 14 and a pharmaceutically acceptable carrier.
- 16. A method for using a protein to screen a plurality of molecules or compounds to identify at least one ligand, the method comprising:
  - a) combining the protein of claim 14 with the molecules or compounds under conditions to allow specific binding; and
  - b) detecting specific binding, thereby identifying a ligand which specifically binds the protein.
- 17. The method of claim 16 wherein the molecules or compounds are selected from DNA molecules, RNA molecules, peptide nucleic acids, peptides, proteins, mimetics, agonists, antagonists, antibodies, immunoglobulins, inhibitors, and drugs.
- 18. A method of using a protein to prepare and purify antibodies comprising:
  - a) immunizing a animal with the protein of claim 14 under conditions to elicit an antibody response;
  - b) isolating animal antibodies;
  - c) attaching the protein to a substrate;
  - d) contacting the substrate with isolated antibodies under conditions to allow specific binding to the protein;
  - e) dissociating the antibodies from the protein, thereby obtaining purified antibodies.
- 19. An antibody produced by the method of claim 18.
- 20. A method for using an antibody to diagnose conditions or diseases associated with expression of a protein, the method comprising:
- a) combining the antibody of claim 19 with a sample, thereby forming antibody:protein complexes; and
  - b) comparing complex formation with a standard, wherein the comparison indicates expression of the protein in the sample.
- 21. The method of claim 20 wherein expression is diagnostic of a colon cancer or colon polyps.

30

25